

Chapter 10

VALUE-ADDED TAX AND RETAIL SALES TAX

I. Introduction

In addition to the income tax reforms described above, the Treasury Department also considered a different option, the imposition of a national sales tax. This chapter describes the types of sales taxes considered and their advantages and disadvantages, with emphasis on their economic effects. Volume III of the Tax Reform Report discusses these issues in much greater detail, focusing on the value-added tax. This is the form of sales tax that would be most appropriate for use at the Federal level, if a decision was ever made in favor of a national sales tax.

II. Alternative Forms of Sales Taxation

Sales taxes may be single stage in nature, applying to only one stage in the production or distribution process, such as a retail or manufacturers tax, or to all stages, such as a value-added tax. Only two types of general sales tax deserve serious consideration for adoption by the Federal Government, a retail sales tax and a value-added tax extending through the retail level. Sales taxes that do not include the retail level, such as a manufacturers or wholesale tax or a value-added tax that stopped at the wholesale level, are inferior alternatives and should not be considered for the United States.

A. Retail Sales Tax

Forty-five of the states, the District of Columbia, and many local governments have a retail sales tax, a single-stage tax that applies to all sales to final consumers, not just those made by retailers. A retail sales tax is levied on all final or retail sales of goods and services except those that are exempt from tax. More than one half of the states, for example, exempt food consumed at home for distributional reasons. Most services are not taxed, except in a few states, partly to achieve social objectives and partly for administrative reasons. Many, but not all, sales to business firms are exempt. This exemption is achieved by allowing firms to make tax-free purchases of various categories of goods, such as those purchased for resale, or by exempting certain items commonly bought only by businesses, such as equipment and machinery. The exemption of business purchases is necessary to prevent a product, or inputs into its production, from being taxed more than once as it moves through the production-distribution process. Exports (other than those made directly by foreign tourists in the United States) are not taxed under a retail sales tax, but imported goods are taxed when sold at retail in a state with a sales tax.

The operation of a 5 percent retail sales tax is illustrated in the simple two-stage example in Table 1. It is assumed that a winery grows its own grapes, makes no purchases of produced goods from other firms, and makes no retail sales, but sells \$200 worth of wine to a grocery store. The grocer sells the wines purchased from the winery to households for \$300. With a retail sales tax, no tax would apply on the sales by the winery to the grocer because these are not retail sales; since the wine purchased is for resale, the grocer is registered to make tax-free purchases. But the grocer would collect \$15 on his retail sales of \$300. (See line d.)

Compared to a tax with numerous exceptions and exclusions, a broad-based retail sales tax would be less likely to interfere with decisions by individuals and business firms on what to consume and what to produce and would be easier to administer. Ideally, a comprehensive retail sales tax would apply to all consumption expenditures. For 1988, the projected level of total personal consumption expenditures is about \$3,100 billion and each percentage point of a tax levied on this total would therefore yield about \$31 billion. In fact, any realistic sales tax base would probably be well below this, because of the difficulty or inadvisability of taxing certain types of consumer expenditures. As explained below, a more realistic, but comprehensive base would be about \$2,400 billion.

B. Value-Added Tax

Though the value-added tax is unfamiliar to most Americans, it is imposed throughout much of the rest of the world. A value-added tax that extends through the retail level is levied on each firm in the production and distribution chain, from the extraction of raw materials through the manufacturing and distribution processes, to the last sale to final customers. Thus, under a comprehensive value-added tax, all businesses, not just those that sell at retail, would pay tax on their sales. An important characteristic of a value-added tax is that tax is applied only to the value added by the firm, that is, to the excess of its sales over its purchases of goods from other business firms. A value-added tax is usually collected by the tax credit method; each firm applies the tax rate to its taxable sales, but is allowed a credit for value-added tax paid on its purchases of goods and services for business use, including the tax paid on purchases of capital equipment under a consumption-type value-added tax. As a result, the only tax for which no credit would be allowed would be that collected on sales made to households, rather than to businesses. Since the sum of the values added at all stages in the production and distribution of a good are equal to the retail selling price of the good, the revenue base of a retail sales tax and a value-added tax with the same coverage are theoretically identical, and a given tax rate will yield the same amount of tax revenue under either approach. Thus, despite its multistage character, a value-added tax is very much like a retail sales tax in that it is a tax on expenditures by consumers.

Table 10-1

ILLUSTRATION OF A RETAIL SALES TAX
AND A VALUE-ADDED TAX

(Tax Rate is 5 Percent)

<u>Assumed Facts</u>	<u>Winery</u>	<u>Grocery Store</u>	<u>Total</u>
a. Sales	200	300	**
b. Purchases	0	200	**
c. Value added (a-b)	200	100	**
<u>Calculation of Retail Sales Tax</u>			
d. Tax (5% of a, for grocer only)	*	15	15
<u>Calculation of Value-Added Tax</u>			
e. Tax on sales (5% of a)	10	15	**
f. Credit for tax on purchases (5% of b)	0	10	**
g. Net tax (e-f)	10	5	15

* Retail sales tax is collected only on retail sales by grocer; it is not levied on sales by the winery.

** Not relevant for illustration.

The value-added tax can also be illustrated using the simple example in Table 1. Both the winery and the grocery store would collect the 5 percent tax on their sales (\$10 and \$15, respectively, on sales of \$200 and \$300), and both would be allowed a credit for tax paid on business purchases. In this example, the winery has no purchases from other firms and thus no credit for tax paid, but the grocer is allowed a credit for the \$10 in tax collected by the winery on sales to the grocer. Since the tax is on final consumers, no credit is allowed for the \$15 of tax collected on the grocer's sales to households. As with a retail sales tax, value-added tax would not be charged on export sales, but it would apply to imports.

This illustration reveals a key characteristic of the value-added tax: it is simply an alternative means of collecting a tax that has ultimate effects quite similar to those of a retail sales tax. This point is further illustrated in the example of Table 1 by noting that the total amount of tax collected from the winery and the grocer under the value-added tax, \$15 (see the "total" column in line g), is the same as that collected from the grocer alone under a retail sales tax (see line d). Consideration of more detailed examples involving imports, exports, capital goods, intermediate goods, and more complex processes of production and distribution does not seriously alter this fundamental conceptual equivalence between an ideal retail sales tax and a value-added tax of the type most likely to be imposed in the United States.

This similarity between the two taxes greatly simplifies the task of Americans trying to understand and assess the advantages and disadvantages of the unfamiliar value-added tax. For most purposes, one can simply consider the pros and cons of a "sales tax," without asking whether the tax is to be implemented as a retail tax or as a value-added tax. Only if it is decided that a Federal sales tax may be desirable must attention turn to more detailed consideration of the differences in the way the two taxes are administered and to the economic effects created by those administrative differences. These differences are considered briefly below and in greater detail in Volume III.

C. Advantages of Uniform Rates

To avoid unintended distortions in consumer behavior, a sales tax should constitute a uniform percentage of all consumption expenditures. This objective can be best achieved with a broad-based retail sales or value-added tax imposed at a single rate. Still, the experience of the states with the retail sales tax and of European countries with the value-added tax shows that it may be necessary to exclude some goods or services from the tax base for distributional reasons or to help achieve social objectives. For example, exclusion of food or medical care may be deemed necessary to avoid imposing an undue burden on those below the poverty level, and education and religious activities may be excluded from taxation as a way of encouraging these activities. Any exclusions from the tax base, however, should be kept

to a minimum and should be solidly justified on the basis of distributional, social, or administrative necessity. Apart from the exclusions that are necessary to achieve these goals, there should be only one rate of tax, and it should be applied to a comprehensive tax base.

There are both administrative and economic reasons for this judgment. First, differences in rates impose on business firms and their employees the necessity to know which rate to apply to any given item and the obligation to make the proper distinction as sales are made. If orange juice, for example, is tax free, but juice substitutes are taxed at the standard rate, and orange soda is taxed at a higher luxury rate, then each grocery store clerk must know which rate to apply to these different products. Distinctions of this type also greatly complicate tax administration, since it is necessary for auditors to verify the rates reported on various sales.

The use of multiple or differential rates also interferes with tax neutrality by distorting consumer choices away from highly taxed items and toward lightly taxed ones. The end result is reduced consumer satisfaction and a less efficient use of the economy's resources. This is why it would be preferable not to exclude food from the tax base, if there is an acceptable and effective alternative for reducing the sales tax burden on the poor. For the same reasons, services, as well as goods, should be subject to tax. The failure to tax expenditures on services favors those persons with relatively strong preferences for services and distorts consumption away from commodities and toward services. Moreover, if services are not taxed, the tax rates on taxable sales or on income must be higher than otherwise in order to raise a given amount of revenue, thereby creating further distortions and disincentives.

Nor should higher rates be applied to "luxuries" or to goods deemed not to be necessities in an effort to increase the progressivity of the tax system. Doing so distorts consumption decisions and creates difficulties in complying with the tax and in administering it. Moreover, it is unnecessary. Given the existence of a progressive individual income tax, it is far easier to increase progressivity, if that is the goal, by adjusting the structure of income tax rates.

D. Sales Taxes Unworthy of Consideration

The retail sales tax and a value-added tax extending through the retail level are the only types of sales tax that should be considered for adoption by the United States. Thus, even if a Federal sales tax is thought useful, the United States should categorically reject: a single-stage tax levied before the retail level, such as a manufacturers or wholesale tax; a value-added tax that does not include the retail stage; and a multiple-stage "turnover" or cascade tax that allows businesses no credit for tax paid on purchases for business use.

Developing countries view nonretail taxes as attractive since the number of taxpayers needs to be kept to a manageable size for administrative and enforcement purposes. Moreover, recordkeeping is often not adequate to apply a sales tax to the numerous small firms at the retail level in developing countries. Instead, these countries may simply collect tax at the manufacturing (or import) stage or on wholesale sales to retailers. In the United States, in contrast, there is no administrative or compliance argument against including the retail level in a sales tax; state experience with the retail sales tax amply and persuasively demonstrates this.

There are many economic and administrative disadvantages to excluding the retail stage from a sales tax. These can be discussed for a single-stage tax that excludes the retail level, though the same arguments would apply to a value-added tax that is "truncated" to exclude retailing. Such a tax would be equivalent to a single-stage tax imposed at the wholesale level.

Suppose that a major oil company is economically integrated from the oil field to the service station, owning oil fields, refineries, a wholesale distribution system, and even retail outlets. It would clearly be unfair and distortionary to exclude all of the company's retail sales from taxation, just because the company sells its own products directly to consumers. Rather, to be fair and neutral it would be necessary to impute a value to the products at the wholesale level in order to achieve parity with those retailers not associated with a comparable integrated company. But to assign a value, for tax purposes, to "sales" between affiliated enterprises would be administratively burdensome, possibly open to abuse, and it would be especially difficult in those industries in which products are not standardized and in which there are few sales occurring at market prices between unrelated parties.

Even in the absence of any manipulation of imputed prices and the administrative effort that would be required to prevent it, omitting the retail level from the tax base would create economic distortions that would waste resources and favor or penalize both consumers and firms in a capricious and haphazard manner that was totally unrelated to any policy objective. A retail sales tax or value-added tax that extended through the retail level and applied to most goods and services would be neutral between types of consumption. By comparison, a tax that excluded the retail level would favor products of industries with a high percentage of value added at the retail level. That is, it would favor products with high retail margins. Services would probably be excluded from a nonretail tax because they are inherently a retail activity. A nonretail tax would create an incentive to restructure business operations to minimize tax liability, basically by transferring functions and costs forward beyond the point of impact of the tax. In the case of a manufacturers tax, for example, activities that might ordinarily be undertaken by a manufacturer and reflected in the manufacturer's price, such as advertising and transportation, would be spun off to separate subsidiaries beyond the manufacturing sector or purchased from unrelated firms in order to keep them out of

the tax base. The manufacturing level tax employed by Canada is notorious for these types of difficulties and a value-added tax is currently under consideration as a replacement.

A multiple-stage turnover tax is even worse than a single-stage tax levied before the retail level. Under such a tax, goods are subject to tax each time they are sold. Thus the amount of tax ultimately imposed on a given product depends on how many times it has turned over (been sold) during the production-distribution process. This distorts economic decisions and produces undesirable incentives for tax-motivated vertical integration, something a value-added tax avoids by allowing a credit for tax paid on all purchases for business use. In addition, a turnover tax discriminates against products in which value added occurs early in the production-distribution process, much as a manufacturers or wholesale tax does. Finally, it is impossible to remove a turnover tax from exports precisely, since the amount of tax that has been paid on a given product depends on the degree of vertical integration and whether value is added early or late in the production and distribution chain. For the same reason, it is impossible to levy a tax on imports to compensate exactly for taxes paid on comparable goods produced domestically. Merely applying the tax to the tariff-inclusive value of imports is not sufficient because the imported value will not necessarily be the same as the value at which the manufacturers or wholesale tax would apply to a domestic good. It is for reasons such as these that turnover taxes have long been considered unacceptable and that the European countries abandoned the turnover tax in favor of the value-added tax when the Common Market was established.

III. Pros and Cons of a National Sales Tax

A Federal retail sales or value-added tax that included the retail level would have both advantages and disadvantages. Since little needs to be said in describing the advantages, they are simply listed here. The disadvantages are described in greater detail, since they are more specific to this particular form of taxation.

A. Advantages of a Sales Tax

A national sales tax would have several major advantages that are discussed in detail in Volume III. If it were used to replace part of the income tax, a Federal sales tax would allow even lower income tax rates. By taking pressure off the definition and measurement of taxable income, a sales tax would help reduce income tax avoidance and evasion as well as lessen the incentive to shelter income from the income tax. Based on consumption, rather than income, a national sales tax would not discriminate against saving the way the income tax does. Accordingly, it may increase the level of private saving and generate a corresponding increase in capital formation and economic growth. A broad-based sales tax would almost certainly distort economic choices less than the income tax does. In contrast to the income tax, it would not discourage capital-intensive methods of production or risk taking and it would be neutral with regard to

consumption behavior, neither encouraging nor discouraging consumption of particular goods or services.

One claim commonly made for a value-added tax, that it would improve the competitive position of U.S. products in world markets, is generally incorrect. Under international rules, exports may be sold free of any sales tax and imports pay the same sales tax as domestically-produced goods. Thus, a value-added tax could be rebated on goods that are exported; similarly, value-added tax could be collected on imported goods, either at the time of importation or at the first domestic sale. The refund of taxes on exports and collection of tax on imports, known as border tax adjustments, are sometimes likened to an export subsidy and import tariff, which, at fixed exchange rates, would stimulate exports and discourage imports.

But these border tax adjustments simply allow U.S. exports to occur free of value-added tax; they do not reduce the price at which U.S. exports were sold before the tax was imposed. Imposing the tax on imports merely places imports on an equal tax footing with domestic goods. Thus, by itself, a value-added tax is no more likely than a retail sales tax to have favorable effects on international trade. A retail sales tax would not apply to exports either, and it would apply to retail sales of imported goods. Only if a sales tax replaced part of a tax that could not be rebated on exports or collected on imports, such as the corporation income tax, would there be reason to expect that U.S. products would be more competitive. This would only happen, however, if the substitution of a sales tax for the corporate income tax did not cause the domestic price level to increase and if exchange rates are fixed.

B. Disadvantages of a Sales Tax

1. Growth of government. The United States stands almost alone among the developed countries of the free world in not levying a national sales tax. Virtually all of the members of the European Economic Community (EEC) employ a national value-added tax. (Greece, which recently joined the Community, is scheduled to adopt a value-added tax on January 1, 1986). Of the twenty-three members of the Organization for Economic Cooperation and Development (OECD), only two countries -- Japan and Turkey -- use neither a value-added tax nor a general sales tax.

The lack of a national sales tax in the United States is reflected closely in the percentage of Gross Domestic Product (GDP) devoted to public use in the United States and in other countries. In 1982 total tax revenues at all levels of government averaged 30.5 percent of GDP in the United States. The comparable figure for the EEC countries was 40.1 percent and for the countries of the OECD, exclusive of the United States, it was 37.1 percent. In the United States, sales taxes (state and local) took approximately 6 percentage points less of GDP than in the EEC and in the OECD (exclusive of the United States). It is not only sales taxes that are lower in the United States; corporate income and social security taxes also are substantially lower in the

United States than in many other developed countries. Still, these figures suggest that even if a sales tax were initially imposed as a partial replacement for the income tax in a revenue-neutral change, public spending in the United States would eventually be greater with a national sales tax than without one.

2. Regressivity. A general sales tax is often criticized as unfair to lower income individuals and families. There are two aspects to this equity argument: the absolute burden of the tax on the lowest income groups, and the regressivity of the tax or the relatively higher burden of the tax at the lower income levels than at the higher. As explained below, there are four alternatives for lessening the burden of the tax on the poor. For those individuals and families that are above the poverty level of income and thus subject to the income tax, the regressivity of a sales tax can be offset through the adjustment of income tax rates or through non-refundable credits against the income tax.

3. Effect on prices. Assuming an accommodating monetary policy, a sales tax would almost certainly increase the price level by roughly the percentage it represents of consumption spending. That is, a 4 percent sales tax that applied to 75 percent of consumption expenditures would increase the general price level by about 3 percent. Although this would be a one-time occurrence, not an annual increase, it might cause "ripples" of wage increases, because of cost-of-living adjustments, and these could be reflected in further price increases. To the extent the sales tax replaced part of the income tax, there would be little offsetting reduction in prices or wages.

4. Administrative costs. Administration of a Federal value-added tax would require substantial additional resources. The Internal Revenue Service estimates that once the administrative program was fully phased in, the annual administrative costs would run about \$700 million (at 1984 prices), or about 0.4 percent of revenues from a 10 percent broad-based value-added tax. To administer a value-added tax, the IRS would require approximately 20,000 additional personnel.

5. Federal pre-emption. States, and more recently local governments, consider the sales tax base their exclusive fiscal domain. Federal imposition of a sales tax might reduce somewhat the ability of state and local governments to tax that base and would therefore be seen by those governments as an unwelcome intrusion. This concern could be reduced if Federal adoption of a retail sales tax led to increased cooperation between the various levels of governments in tax administration and collection. This cooperation would be much easier to achieve if the Federal Government adopted a retail sales tax than if it adopted a value-added tax. If the state and Federal tax bases were identical, state taxes could be collected by the Federal Government as it collected its own tax. Of course, a Federal sales tax could not simply be collected by the states, because of the current differences in state tax bases.

IV. Relevance of the European Experience

Though the reasons that motivated the European countries to switch to the value-added tax during the late 1960s and the 1970s are largely irrelevant for the present debate in the United States, European experience does contain important lessons for the United States. Before adopting the value-added tax, most of the members of the EEC had multiple-stage turnover taxes of the type described and analyzed above. As a result, the switch to the value-added tax represented a rationalization and clear improvement of the European tax systems, rather than the creation of a new source of revenue. The United States, by comparison, does not have an inefficient sales tax that needs to be overhauled.

The European switch to the value-added tax involved a relatively minor change in tax administration. Therefore, few additional administrative resources were required. By comparison, since the United States has no Federal sales tax, a substantial increase in IRS administrative resources would be required to implement a value-added tax.

Because the European value-added taxes replaced existing sales taxes, there was little effect on consumer prices or on the distribution of tax burdens across income classes. By comparison, an American value-added tax would raise prices in the year it was introduced and would add a regressive element to the Federal tax system, unless steps were taken to reduce the regressivity.

European experience also indicates that a consumption-type value-added tax, collected by the tax credit method, would be the most appropriate type for the United States and that serious administrative, compliance, and efficiency problems are involved in the use of the tax to achieve non-revenue objectives. That is, multiple rates of tax and efforts to favor certain types of consumption by exclusions or lower rates involve significant costs and complexities, as well as revenue losses.

V. Tax Base and Revenue Potential

Total personal consumption expenditures are estimated to be about \$3,100 billion in 1988; each percentage point of a value-added tax levied on this total would yield \$31 billion. In fact, the tax base is likely to fall well below total consumption, for a number of reasons. Since certain items would be excluded either for distributional or administrative reasons, a more realistic, but broad, base would be about \$2,400 billion in 1988 levels of expenditure. If food consumed at home also is excluded, the tax base would fall to \$2,000 billion. The most important items of personal consumption that are excluded from the tax base in arriving at these figures are described briefly below and discussed more fully in Volume III.

Owner-occupied housing is difficult to tax under any sales tax. Ideally, housing services would be taxed over the life of a house, but this is clearly impossible because of the difficulty of valuing the

housing consumed by owner occupants, the value of the so-called "imputed rent" or what the house would rent for on the open market. Since the "rent" on owner-occupied housing cannot be taxed, it would be unfair and distortionary to tax the rents on tenant-occupied residential housing. One alternative would be to tax newly-constructed housing while excluding the rental value of residential housing from the tax base (both tenant- and owner-occupied). This alternative would reduce the base by about \$290 billion in 1988. If this approach imposes an unacceptable tax burden on housing, another alternative, following the practice with state retail sales taxes, would be to tax the cost of materials entering into new housing construction, repair, and alterations.

A number of other personal consumption items would also probably not be included even in the most comprehensive value-added tax base for a variety of reasons. Medical care, educational expenses, and religious and welfare expenses would probably not be taxed for social and distributional reasons. Because of the problems of defining value added, it would be difficult to tax certain banking services and insurance, and tax could not be collected on the consumption expenditures of Americans travelling abroad, but foreigners travelling in the United States would pay tax on some items. There also would be pressure to exclude urban transit service, which is heavily subsidized. Combined with the proposed treatment of housing, exclusion of all of these items from the tax base would result in a comprehensive value-added tax base of about \$2,400 billion, or 77 percent of total personal consumption expenditures of \$3,100 billion.

VI. Reducing Regressivity

The most frequent objection to any form of general sales tax is its regressivity, and especially the burden it places on families with incomes below the poverty level. Regressivity within the portion of the population subject to the income tax -- roughly those above the poverty level in the present proposals for income tax reform -- can be offset by changes in income tax rates or by tax credits; but no adjustment of tax rates or non-refundable credits can eliminate the sales tax burden on those below the income tax threshold.

There are four possible approaches to removing the burden of a sales tax on low-income households below the income tax threshold. First, food for home consumption can be excluded from the tax base. This approach is followed in 27 of the state sales taxes. (One state uses a lower rate for food.) There are, however, problems with this approach. Even though expenditures on food consumed at home are regressive (a larger percentage of income being spent on food at low income levels than at middle and upper income levels), about 80 percent of the revenue loss from excluding food from the tax base would be from expenditures by those with incomes above the poverty level. Given the administrative and economic advantages of applying uniform rates to a comprehensive base, exclusion of food is not a desirable way to reduce regressivity.

A second approach would be to establish a system of refundable credits under the income tax to offset the burden of the sales tax on the consumption expenditures necessary for a minimum standard of living. Though this approach could, in principle, effectively eliminate the burden of a sales tax on an essential level of consumption, it also suffers from a number of drawbacks. First, if the credit is available to all taxpayers, rather than just low income individuals and families, it is expensive. If the credit were available to everyone, it would absorb about one-third of the revenue from the sales tax. While it would reduce the burden of the sales tax for families below the poverty line, 90 percent of the credit would go to those above the poverty level. This demonstrates that the credit should be phased-out for incomes above the poverty level; a credit that is phased-out between the poverty level of income and 150 percent of that level would absorb about a tenth of the revenue from a sales tax. A phased-out credit, however, would be more complex and, in effect, would generate higher marginal income tax rates over the phase-out range. A credit of either type may also be viewed as establishing, in embryonic form, the administrative machinery for a new social program such as a family assistance plan. It can be argued that the desirability of such a program should be debated explicitly in the context of welfare reform, rather than being introduced as a by-product of adopting a sales tax. Several of the states, however, have used this approach for lessening the burden of the sales tax without kindling a debate over welfare reform.

The third approach is indexed transfer payments. If all families below the poverty income line received government transfers, and no one else did, it would be relatively easy to overcome the low-income burden of a sales tax; transfers could simply be increased to offset the sales tax paid by low income families. But not all low income individuals and families receive transfers, and many above the poverty level do receive them. Even so, adjustment of transfers offers a third potential means of reducing sales tax burdens on the poor.

A personal exemption type of value-added tax would be a fourth method of eliminating the sales tax burden on low-income families. Under this approach, which would differ substantially from a conventional value-added tax, workers would be considered to be "sellers" of labor services and would be subject to a value-added tax, but they could not take credits for value-added tax on their purchases of consumption goods. Employers would be allowed a credit for the taxes "charged" by employees on their wages. Treating employees as sellers of labor, rather than employees, changes the value-added tax in one crucial way: it would allow the introduction of personal exemptions in the calculation of the value-added tax liability of workers. That is, workers could be allowed an exemption from value-added tax for a specified amount of the income earned from "selling" their labor to the employer. This approach could alleviate the burden of the tax on low-income individuals receiving labor income, but it would not help those not receiving labor income, such as retirees without pensions or the unemployed. The approach also raises some questions about whether

the tax would be shifted to consumers to the same extent that a traditional value-added tax would be shifted.

VII. Value-Added Tax versus Retail Sales Tax

The value-added tax and the retail sales tax are collected in different ways; thus they have somewhat different administrative implications and economic effects, despite their basic similarity. On balance the administrative advantages of the value-added tax appear to outweigh the primary administrative advantage of the retail sales tax in the American context, its much greater familiarity.

Purchases for business use should not be taxed under a sales tax; otherwise production techniques will be distorted, the value of a product will be taxed more than once, and exports will be penalized. Under a value-added tax any tax collected on capital goods, intermediate products, or other inputs to the production-distribution process is allowed as a credit against the tax imposed on the sales made by the purchasing firm. This means that goods and services purchased for business use are automatically freed from tax; by and large, only goods and services sold to households are ultimately taxed under the value-added tax. Tax auditors need only to check the purchasing firm to ensure that purchases for which a credit is claimed were used for business purposes. By comparison, it is more difficult under a retail sales tax to completely exempt all business purchases. Firms must provide exemption certificates to their suppliers to buy tax free, and auditors must check both the supplier and purchaser in cases of doubt. At the state level, this system of exemption certificates applies only to goods purchased for resale or goods that become component parts or physical ingredients of produced goods; other purchases, such as machinery and equipment, are only exempt if specifically provided in the state statute. The end result is that not all business purchases are free of retail sales tax; about 20 percent of sales tax revenue is from taxing business purchases.

Another important advantage of the value-added form of sales tax is the fact that tax is collected as products move from stage to stage in the production-distribution process. Thus by the time a product reaches the retail stage, much of its total value has already been taxed. (In the example of Table 1, two-thirds of the tax was collected from the winery, and only one-third from the grocer.) This means that tax evasion at the retail level is less of a problem under a value-added tax than under a retail sales tax; under the latter tax, evasion at the retail level means that no tax is collected. (Of course, all previously collected revenue from the value-added tax could be lost if the retailer understates sales but claims a credit for all value-added tax paid on purchases.) The possibility of collecting tax before the retail level can be particularly important in the case of sales by street vendors and purveyors of certain services in the legal underground economy. A Federal sales tax of as little as 4 percent, together with state and local taxes, could produce a combined rate of tax of 10 percent or more in many states, and the combined rate could easily exceed 15 percent if the value-

added tax approached European rates. Rates this high could increase the incentives for evasion.

Related to this advantage is the audit trail provided by the chain of taxes and credits with the value-added tax. In the example of Table 1, the grocer can only claim credit for tax paid on purchases from the winery if the grocer can produce an invoice documenting that he was charged tax by the winery. Auditors can then trace the invoice back to see that the winery remitted to the government the tax claimed as a credit by the grocer. There is no such paper trail under a retail sales tax.

VIII. Implementation

A value-added tax could not be imposed quickly by employing the existing personnel and practices of the Internal Revenue Service. Rather, it would be necessary to employ and train additional IRS agents, acquire additional computer capability, establish new administrative procedures, and engage in a major effort in taxpayer education. These requirements are described more fully in Volume III. The Internal Revenue Service estimates that it would need 18 months after enactment before it could begin to administer a value-added tax. Thus, if legislation imposing a value-added tax were enacted in late 1985, the tax could be made effective July 1, 1987.

The one-time start-up costs for recruiting and training IRS agents, acquiring enhanced computer capabilities, and educating the public about the value-added tax are substantial. These start-up costs indicate clearly that the value-added tax should not be considered as a temporary source of revenue. Moreover, given the magnitude of both the start-up costs and the on-going annual costs of administration and compliance, it would be unwise to introduce a value-added tax at less than at a rate of 5 or 6 percent. (Some experts believe that imposition at a rate below 10 percent would not be sensible.)

IX. Conclusions

Because of its inherent regressivity, a Federal value-added tax or other form of general sales tax should not be adopted as a total replacement for the income tax. Implementing a Federal sales tax would be costly and it would take time. Therefore, it does not seem desirable to introduce a Federal sales tax solely as a replacement for part of the present income tax, even though doing so would take pressure off the latter. Reform of the income tax, along the lines proposed in Chapters 5 through 7 is a more appropriate avenue of fundamental tax reform in a revenue neutral context.

For economic and administrative reasons any Federal sales tax that is adopted should extend through the retail level and should be applied as widely as possible at a uniform rate of tax. The value added technique appears to be somewhat preferable to the retail sales technique as a means of implementing a sales tax.

A Federal sales tax would have considerable advantages and serious disadvantages. These must be weighed carefully in deciding whether a sales tax should be imposed. The advantages include neutrality toward saving, capital formation, production techniques, and consumption decisions. The disadvantages are regressivity, a one-time increase in prices, Federal intrusion into the sales tax area, the administration and compliance costs of a new Federal sales tax, and the likelihood of greater public expenditures. Any proposal for introducing a sales tax should include steps to relieve the tax burden on low-income individuals and families.